

## The Farm Service Agency's Limited Resource Interest Rate Program in the 1990s

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*The Farm Service Agency (FSA) provides subsidized "limited resource" interest rates to borrowers unable to afford regular program rates in its direct operating and farm ownership programs. Analysis of borrowers paying limited resource rates and those paying regular program rates in the 1990s reveals that the financial condition of the two groups is becoming more similar. Charging limited resource rate borrowers regular rates would likely have little effect on the ability of many of these borrowers to repay debt.*

The Farm Service Agency provides direct and guaranteed farm ownership (FO) and operating (OL) loans to farmers unable to obtain commercial credit. In the late 1970s rising interest rates heightened Congressional concerns over the ability of financially stressed farmers to continue farming. Consequently, Congress enacted the Agricultural Credit Act 1978 (P.L. 95-334), which authorized USDA to make direct FO and OL loans at either limited resource or regular program interest rates (see box). Regular program rates are set near the cost of government borrowing, while limited resource rates are set below the cost of government borrowing. Limited resource rates have been at their statutory minimum of 5 percent since April 1986 for FO loans and since December 1990 for OL loans.

Subsidized interest rates are not limited to FSA's direct loan programs. Farm legislation in 1985 expanded FSA's guaranteed lending authority and introduced an interest rate subsidy program for guaranteed loans. The guaranteed interest rate assistance program provided up to a 4-percentage-point reduction in interest rates paid by the borrower for 3 years, with FSA and the lender sharing the cost equally. Farm legislation in 1990 removed the 3-year limit and the matching requirement of the lender. In the low interest rate environment since 1992, the 4-point reduction has often meant that subsidized guaranteed loan rates are less than subsidized direct loan rates.

Direct limited resource rates and guaranteed interest rate assistance rates were introduced to provide temporary relief to financially stressed farms who could not service debt at high interest rates. However, agriculture and lending conditions have changed considerably in recent years. Market interest rates are now low, often reducing the difference between subsidized and regular direct program rates. Also, fewer farms are experiencing financial stress following a surge in farm asset values and greater farm income. In the 1990s, subsidized rates have been increasingly targeted toward beginning farmers as part of a policy to provide assistance to new entrants.

Because of the farm sector's improved financial health and a greatly reduced level of FSA direct lending in the 1990s, farm

operators are much less reliant on FSA as a primary credit source. Consequently, credit enhancements tied to FSA direct loans are less likely to have an impact on borrower income. This research evaluates the effectiveness of the limited resource rates in today's lending and interest rate environment. An analysis of interest rate subsidies on other loan programs is left for future research. Financial and structural characteristics of FSA borrowers with direct OL and FO loans at limited resource and regular program rates are compared to determine if limited resource rates are directed to less creditworthy FSA borrowers.

### Limited Resource Rate Volume Is Large

Whether measured by volume or numbers of borrowers served, the limited resource rates are used extensively. Of the \$2.7 billion in direct OL obligations and the \$330 million in direct FO obligations incurred in fiscal 1991-95, 41 percent of the OL obligations and 65 percent of the total FO obligations were made at limited resource rates. Initially, limited resource rates were used sparingly in the early 1980s in the OL and FO programs despite the fact that interest rates were at a peak and the spreads between limited resource and regular rates were high (figure B-1 and figure B-2). During this period funding for the Emergency Disaster (EM) loan program was very high and that program offered subsidized interest rates that were often less than limited resource rates (figure B-3). Therefore, the EM program was frequently used as a substitute for other direct lending programs, particularly the direct OL program. Total direct obligation volume made at subsidized rates as a percentage of all direct loan obligation volume was at its highest in fiscal 1981, at 82 percent.

As the farm financial problems of the 1980s mounted, FSA began using limited resource rates as a primary loan servicing tool to boost loan repayment ability and keep farmers in business. Also, EM funding was sharply cut and program eligibility tightened, making it less of a substitute source of credit. During this period, two-thirds to three-quarters of total direct OL and FO loan volume was made at limited resource rates.

With improving farm financial conditions and lower interest rates, the use of limited resource rates declined in the 1990s.

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## FSA Direct Programs and Rates

*Direct Farm Ownership and Operating Loan Programs.* Farmers and ranchers who are or will be operators of a family-sized farm or smaller and who are unable to get credit elsewhere are eligible for FSA's direct loan program. Farm ownership (FO) loans can be used to acquire, enlarge, or improve a farm or ranch. The operating loan (OL) program provides short-to-intermediate-term production or chattel loans. Loans under each program are capped at \$200,000. After 1996 legislation, the refinancing of existing indebtedness as a qualifying purpose was curtailed, program funding was directed to beginning farmers, stricter time limits on borrower eligibility were imposed, and the authority to finance loans for nonfarm purposes, such as rural business enterprises, was eliminated.

*Limited Resource Rates.* Beginning in 1990, limited resource rates have been set at half the rate on U.S. Treasury notes having maturities of 5 years, but not below 5 percent. This means limited resource rate subsidy costs rise in unison with an increase in 5-year Treasury notes up to 10 percent. As the 5-year rate rises above 10 percent, each 1-percentage point increase raises the limited resource rate by one-half point. Eligibility for the limited resource rate is reviewed annually.

The limited resource rate has been calculated differently in the past. From 1978 to 1981, the rates were set by USDA, but could not exceed 5 percent for FO loans. From 1981 to 1990, FO rates were set at half the regular program rate, but not less than 5 percent, and OL limited resource rates were set at 3 percentage points below the regular program rate.

*Regular Program Rates.* Beginning in 1978 regular rates have been set at the current average market yield on outstanding U.S. Treasury obligations having maturities comparable to the average maturities of program loans. The rate on 5-year Treasury notes is used for OL loans and the rate on 25-year Treasury bonds is used for FO loans. FSA can add up to 1 percentage point to this average and may adjust its rates to the nearest one-eighth of a percentage point on a monthly basis. In practice, rates do not change if they stay in a range that is plus or minus 50 basis points from the current posted rate. The rate at the time the loan was taken out remains in effect until maturity.

FSA loans made at the regular program rate are substantially lower than a borrower could obtain from commercial lenders, hence, providing a subsidy. This is because the cost of funds to the Federal government is below rates on loans from commercial lenders. Recently, FSA regular loan rates have been around 1 to 2 percentage points below comparable average commercial rates. A comparison of averages likely understates the level of subsidy, because direct FSA loans are more risky, on average, than farm loans made by commercial lenders. The riskier FSA direct loans would be charged a higher than average rate by commercial lenders, if they were made at all.

*Other FSA Program Interest Rates.* Direct emergency loans help farmers recover from actual production or physical losses inflicted by natural disasters in counties designated as disaster areas. Rates on loans for actual losses are set by statute at 3.75 percent for farmers unable to get credit elsewhere. Rates on commercial loans guaranteed under FSA's guaranteed FO and OL loan programs are negotiated between the borrower and the lender. FSA can subsidize the rates on OL loans at 4 percentage points, depending on the borrower cash flow need. Eligibility for the subsidy is reviewed annually. Qualifying beginning farmer applicants (less than 10 years of farm experience) can obtain loans to purchase farmland at interest rates set by statute at 4 percent. FSA can make loans at nonprogram interest rates to borrowers ineligible for a loan program. Most of these loans are to facilitate the sale of inventory farmland and the rate charged is an average of local private sector rates for similar maturities.

In fiscal 1991, loans at the limited resource rate still accounted for the majority of total obligation volume as the spread between limited resource and regular rates for OL loans was still 300 to 400 basis points. But the gap narrowed thereafter, and by early 1994 the gap between limited resource and regular program rates was as little as 25 basis points. OL obligations made at the limited resource rate fell to the statutory minimum of 25 percent of total OL loan obligations in fiscal 1994.

When the two rates are similar, the borrower's ability to repay debt is not greatly affected if the regular program rate is used. Therefore, when limited resource and regular program rates are about the same, it is often in the borrower's best interest to take the regular program rate, which is fixed for the life of the loan. Limited resource rates are annual rates, and borrowers are subject to an annual review for eligibility. If eligibility is

denied in a future review, the rate paid by the borrower can be increased up to the current regular rate, which would likely be higher than the very low regular rates experienced in 1994. For example, the regular OL rate is currently 6.5 percent compared to early 1994 when the rate was only 5.25 percent.

Despite recent declines in the amount of annual obligations loaned at the limited resource rate, half of the \$2.6 billion in outstanding direct OL volume and 46 percent of the \$4.3 billion in outstanding direct FO volume at the end of fiscal 1996 were still at the limited resource rate. However, because outstanding loans at the limited resource rate are larger in size than regular rate loans, only 43 percent and 32 percent of outstanding OL and FO borrower cases were at the limited resource rate. There is substantial regional variation in the percentage of total direct borrowers at the limited resource

rates, perhaps reflecting differences in farm financial strength, natural disaster occurrences, and program administration.

### **Characteristics of Limited Resource and Regular Rate Borrowers**

Using USDA's Farm Cost and Returns Survey (FCRS) data for 1991, 1992, 1993 and 1995, the characteristics of FSA borrowers are examined (for technical information on the FCRS, see Morehart, Johnson, and Banker). For each farm loan, survey respondents provided information on their lender, principal balance, current interest rate, term, origination year, and purpose (real estate, nonreal estate, or production). These data were not collected for 1994. Using FCRS and FSA interest rate data, it was possible to identify operators with loans made at limited resource and regular program rates.

Farms that did not have an direct OL or FO loan but had FSA loans under other credit programs, such as emergency loans (EM) and guaranteed loans, were excluded from the analysis. The analysis only examines farms with either FO or OL loans made from 1985 to 1995. Farms which only had FSA loans originated before 1985 were not considered because of difficulty in segregating EM loans from limited resource loans. Excluding loans made before 1985 should have little impact on the study's results because most of the FSA limited resource loans currently outstanding were originated after 1985.

### **Some Differences Apparent for 1991-93**

Means of some selected financial variables are presented for groups of FSA borrowers paying the limited resource rate and those paying the regular program rate. An initial analysis indicated a similarity in the characteristics of FSA regular program and limited resource borrowers using data collected for 1991, 1992, and 1993. Consequently, the 1991-93 data were combined using proper complex survey design procedures to simplify the presentation of results and improve statistical reliability (see Dubman, 1997). Statistically significant differences between limited resource and regular program groups were mostly confined to 1991-93. The average farm balance sheet and income statement for limited resource and regular program rate borrowers indicates limited resource borrowers owed significantly greater amounts of noncurrent liabilities, received more income from livestock sales, and were more reliant on the farm business for their total household income (table B-1).

On average, limited resource borrowers paid 250-300 basis points less on FSA loans than regular program borrowers during 1991-93 (table B-2). But because they had greater indebtedness, the limited resource group incurred a somewhat greater total interest expense. Compared to regular program borrowers, limited resource borrowers were found to be less solvent with a debt-to-asset ratio of 0.41 compared to 0.29 for the regular program group. More limited resource borrowers were highly leveraged with debt-asset ratios of 0.75 or more. Also, limited resource borrowers owed more to FSA and were more likely to have multiple FSA loans. Limited resource borrowers owned more acres but had less investment in real estate. Also, a greater proportion of their real estate was leveraged.

Somewhat more FSA borrowers receiving the limited resource rate had limited equity capital with 40 percent reporting less than \$150,000 in farm net worth. In comparison, the farm net worth for the average commercial-sized farm (\$50,000 or more in annual sales) was about \$500,000 for the same period. Limited resource borrowers probably have less off-farm employment prospects, with fewer having education beyond high school. Also, limited resource rate borrowers were more likely to be family farms with 90 percent reporting that the farm business supported only one family.

### **Groups Appear Similar in 1995.**

In contrast to 1991-93, data for 1995 show fewer statistically significant differences between borrowers using the limited resource and regular program rates. There was no difference between regular program and limited resource borrowers with respect to balance sheet items such as assets owned, debt owed, and gross and net farm incomes (table B-1). The contrast between the two periods may be partially due to the larger sample size obtained by combining individual the 1991-93 data. Normally, this would reduce standard errors and result in more variables being significantly different between limited resource and regular program borrowers. But in this analysis, most of the variables that were significant during 1991-93 were still significant when these years were not combined. This was especially true for some of the debt and solvency variables which displayed significant differences between the limited resource and regular program groups for 1991, 1992 and 1993 (table B-2).

Only four variables were found to be significantly different at the 10 percent level in 1995--multiple households, percent of land cash rented, average FSA interest rate, and percent of farms with over \$250,000 of farm production (table B-2). Limited resource borrowers were again mostly single-family operations, with 97 percent reporting that the farm supported only one family.

For 1995, no significant differences were found between the groups with respect to farm size, operator age, farm profitability, distribution of net worth, investment in real estate, acres owned, number of FSA loans, or off-farm income. Most variable means were remarkably close, with t-statistics approaching 0.

When compared to operators receiving commercial credit, both the regular program and limited resource groups were more financially stressed and had less income. In 1995, over 20 percent were financially vulnerable and more than 10 percent were highly leveraged with debt-asset ratios over 0.75. For both 1991-93 and 1995, a large percentage reported less than \$15,000 in total annual household income. Most reported less than \$250,000 in farm net worth. Most operators supplied 2,000 hours of annual labor, or more, to the farm. Hence, off-farm income possibilities are probably limited. Thus, both groups would likely have difficulty obtaining all of their credit from commercial lenders.

### **The Difference Between 1995 and the Early 1990s**

Analysis of 1991-93 data provides some evidence that limited resource rates were being used by a group of less creditworthy FSA borrowers. In contrast, analysis of 1995 data indicates

that limited resource borrowers were not significantly less creditworthy than regular program borrowers. For 1991-93, two-thirds of the outstanding debt was originated before 1990 while for 1995 less than half of the loans were originated before 1990. Therefore, the differences between the 1991-93 and 1995 data likely reflect some of the differences in the quality of loans in the 1990s versus the late 1980s. Compared to the 1990s, the 1980s represented a period of higher interest rates, greater farm financial stress, and greater direct lending by FSA.

The relatively small difference between regular program and limited resource rates in 1993-94 represents a likely explanation for the greater similarities between the two groups in 1995. During this period many limited resource eligible borrowers changed to regular rates and, hence, made the two populations more similar. When rate differences are low, the ability to service debt is not significantly improved by the lower limited resource rate. Thus, between the 1991-93 period and 1995 many limited resource borrowers may have moved to regular program rates. Another possible explanation is that the most financially stressed FSA borrowers left farming and the more financially sound graduated to private lenders, also making FSA portfolio more homogenous. FSA borrowers who were more financially sound may have taken advantage of the lower commercial rates in the 1990s and have graduated to commercial lenders through the guaranteed lending program.

### Impact of Limited Resource Rates Less in 1995

With shrinking funds available for direct lending, FSA has become a less important supplier of credit. In 1995, FSA direct loans represented about 55 percent of its borrowers' total credit needs with the remainder, some of which may be guaranteed by FSA, supplied by banks, the Farm Credit System, individuals, merchants, and dealers. Thus, the financial status of FSA borrowers is highly influenced by the actions of other lenders. With an average direct FSA indebtedness of \$85,000, the interest rate differential between regular program and limited resource rates would need to be fairly large to have sizable impact on cash flow. On average, a 1-percentage point reduction in interest rates in 1995 would have increased net income by \$690 for limited resource borrowers.

For most operations, FSA interest expense is not a large component of total expenses. On average, interest expense on FSA debt for limited resource borrowers represented only 4 percent of total expenses in 1995. Even after eliminating all interest expense on the outstanding FSA debt of limited resource borrowers, one-third would still have had negative incomes in 1995 (table B-3). Thus, for many borrowers lower interest rates alone will only modestly improve their incomes.

There are some limited resource borrowers who would be sensitive to changes in FSA interest rates. Borrowers for whom FSA interest expense represents over 20 percent of total expenses would fall into this category. But in 1995, this category represented less than 15 percent of limited resource borrowers. Borrowers whose household income is near the poverty level are also likely to fall into this category. A large share (46 percent) of limited resource borrowers had household incomes of less than \$15,000 per year. But, FSA interest expense has a relatively small influence on household income for most of these operations. With no FSA interest expense, 41 percent would still report household incomes of under \$15,000 (table B-3).

### Summary

Whatever the explanation, whether it be low market rates of interest, program changes, or improving farm financial health, there is less indication that the limited resource rate programs are currently serving a group of less creditworthy FSA borrowers. The analysis does indicate that the program has served less creditworthy borrowers during periods of higher interest rates and greater financial stress. But, with the relatively small amounts of FSA debt outstanding per farm, interest rate reductions are probably not a significant factor in improving the incomes for many OL and FO borrowers, especially when rates are low.

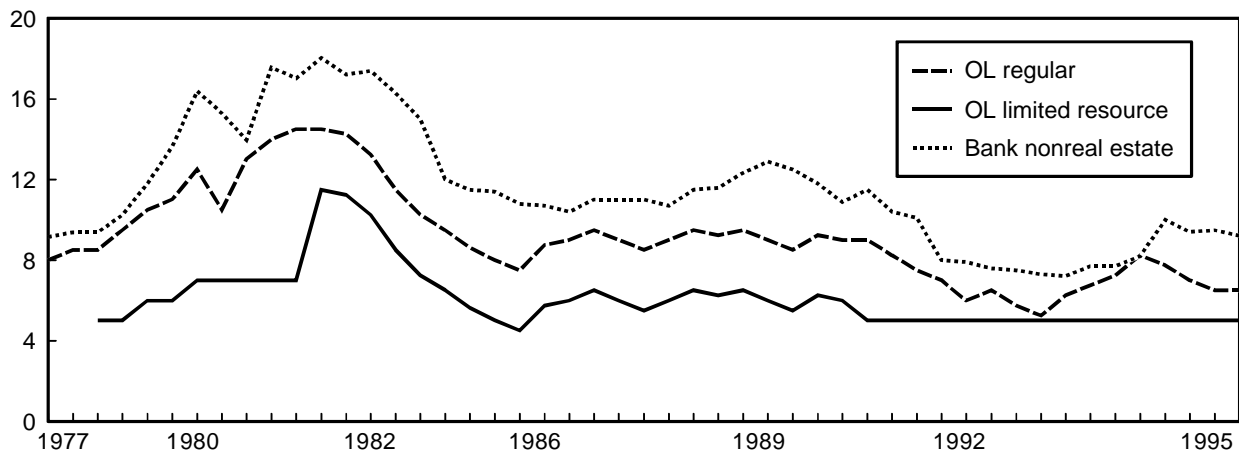
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Figure B-1

**Effective interest rates for FSA direct operating loans and commercial bank nonreal estate farm loans, January 1, 1977 to January 1, 1996**

Percent

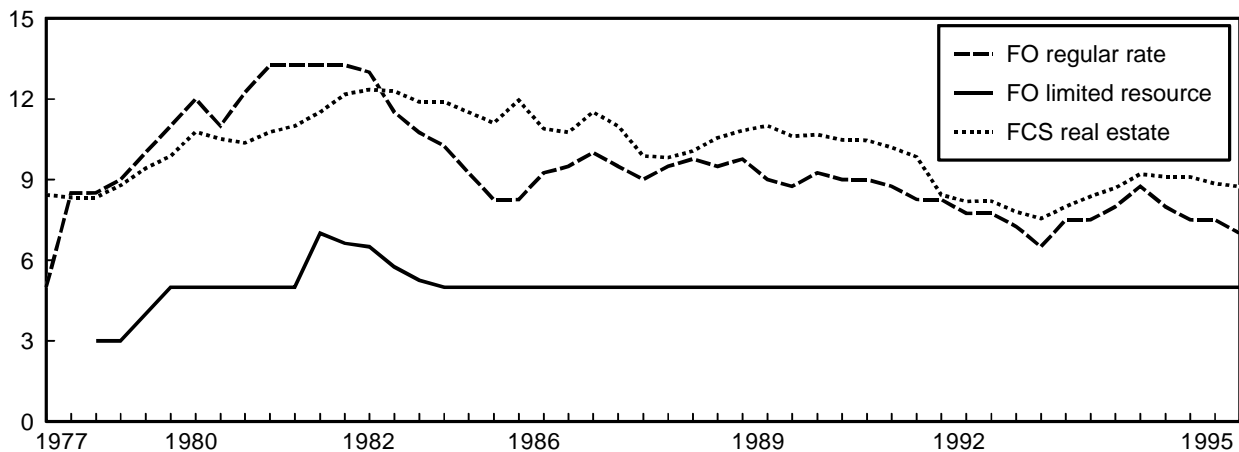


All FSA interest rate changes during the period are recorded. Bank rates are averages of the quarter preceding the FSA rate change.

Figure B-2

**Effective interest rates for FSA direct farm ownership loans and Farm Credit System farmland loans, January 1, 1977 to January 1, 1996**

Percent

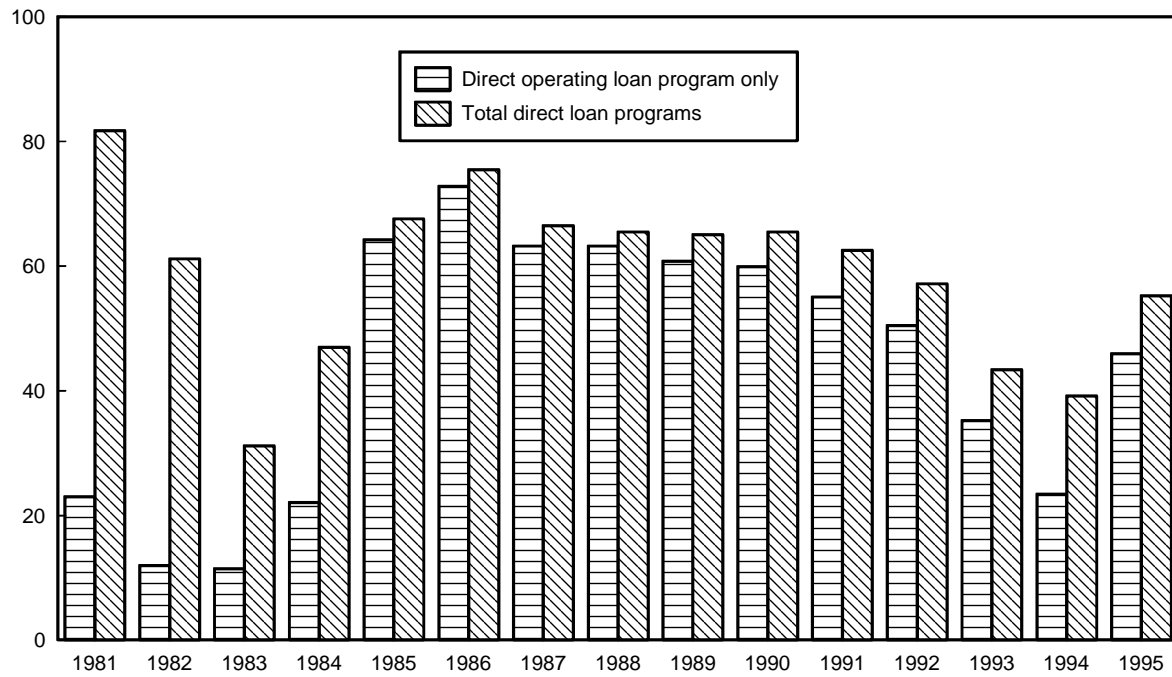


All FSA interest rate changes during the period are recorded. FCS rates are unadjusted for stock ownership and are averages of the quarter preceding the FSA rate change.

Figure B-3

**Share of total obligation dollars made at reduced rates 1/**

Percent



1/ Reduced rates include limited resource and emergency loan rates, which are set below regular program interest rates.

**Table B-1—Farm operation financial statements for FSA limited resource and regular program borrowers having loans originated after 1985, as of 1991-93, and 1995**

	1991-93		1995	
	Limited resource	Regular program	Limited resource	Regular program
<i>Dollars</i>				
<b>Balance sheet:</b>				
Farm assets	467,252	470,538	474,912	460,721
Current assets	64,205	57,623	93,907	85,837
Noncurrent assets	403,046	412,915	381,004	374,884
Land & buildings <sup>1/</sup>	292,080	310,958	266,487	256,155
Other assets	110,966	110,957	114,517	118,729
Farm liabilities	189,450	136,008 <sup>2/</sup>	165,230	165,365
Current liabilities	63,089	40,355	50,572	64,919
Noncurrent liabilities	126,361	95,653 <sup>2/</sup>	114,657	100,445
Nonreal estate	22,258	19,106	32,580	19,753
Real estate	104,103	76,547	82,078	80,693
Farm equity	277,802	334,530	309,682	295,357
<b>Income statement:</b>				
Gross cash income	115,914	99,892	119,364	139,628
Livestock sales	51,607	34,940 <sup>2/</sup>	36,653	37,690
Crop sales	45,433	45,752	48,373	79,324
Government payments	8,792	9,841	7,020	8,042
Other farm income	10,082	9,359	27,318	14,572
Cash expenses	92,854	87,243	103,951	119,224
Variable	67,295	61,751	73,971	83,340
Fixed	25,559	25,492	29,980	35,884
Interest	13,001	10,823	12,672	13,205
Other fixed cash expense	12,558	14,669	17,308	22,679
Net cash farm income	23,059	12,649	15,413	20,404
Noncash expense	-309	1,598	8,538	6,138
Net farm income	23,368	11,051	6,875	14,266
<b>Household income:</b>				
Farm income to household	11,745	4,127 <sup>2/</sup>	3/	8,931
Nonfarm income	19,759	22,858	3/	30,614
Total household income	31,505	26,984	25,665	39,545
Sample size	200	198	64	70

1/ Excludes operator dwelling. 2/ Means of groups significantly different at the 10-percent level. 3/ Estimate not statistically reliable.

**Table B-2—Selected financial and structural characteristics of FSA limited resource and regular program borrowers originating loans after 1985, as of 1991-93, and 1995**

	1991-93			1995		
	Limited resource	Regular program	t-statistic 1/	Limited resource	Regular program	t-statistic
	-----Percent-----		Number	-----Percent-----		Number
Debt/assets	41	29	3.12 a,b,c	35	36	0.20
Debt/equity	68	41	2.90 a,b,c	56	55	0.14
Mortgage debt/land value	39	27	2.50 a,b,c	33	34	0.09
<b>Farm category:</b>						
Vulnerable farms 2/	12	8	1.02 b	28	22	0.18
Debt/asset over 75 percent	21	6	2.95 b,c	11	18	0.83
Livestock farms	57	40	1.75 c	48	44	0.77
Some college education	41	55	1.66 b,c	33	40	0.66
Household income						
Under \$15,000	23	40	1.78 c	46	31	1.32
\$15,000 - \$25,000	22	10	1.42	11	13	0.39
Over \$25,000	52	50	0.20	44	49	0.53
Over 1 household per farm	10	21	1.30	3	14	1.90
Net farm income						
Less than \$0	22	36	1.20	44	35	0.75
0 - \$10,000	25	23	0.22	22	25	0.17
\$10,000-\$25,000	28	17	1.11	11	10	0.02
Over \$25,000	25	24	0.50	23	30	0.19
Value of farm production						
Under \$50,000	34	40	0.81	38	37	0.06
\$50-\$99,999	31	34	0.36	17	8	1.28
\$100,000-\$249,999	23	16	1.15	60	61	0.01
Over \$250,000	13	10	0.53	5	16	1.83
Debt outstanding						
Under \$50,000	14	30	1.96 b,c	14	25	1.06
\$50,000-\$99,999	13	21	1.22 b	18	18	0.06
Over \$100,000	72	49	2.67 a,b,c	67	57	0.85
Net worth						
Under \$150,000	40	27	1.60 c	57	43	0.90
Under \$250,000	64	43	2.50 b,c	58	66	0.74
Over \$500,000	20	43	2.70 a	20	19	0.06
Operator age (years)	48	46	0.50	47	51	1.04
Under 40 years of age (percent)	28	38	0.84	36	29	0.71
Land tenure:						
Acres operated	665	717	0.42	46	996	0.53
Percentage rented from others	46	65	2.70 a,b,c	53	42	0.96
Cash rent/total rent(%)	71	66	0.55 a	43	80	2.75
<b>FSA loan characteristics:</b>						
Total FSA debt (dollars)	113,470	78,963	2.70 a,b	85,219	86,778	0.10
FSA/total debt(percent)	63	61	0.20	54	56	0.17
FSA loans/farm (number)	1.7	1.1	3.82 a,b,c	1.0	1.1	0.50
Farm w/1 FSA loan (percent)	61	91	3.98 a,b,c	91	81	1.43
FSA int. rate (percent)	5.5	7.9	9.60 a,b,c	5.2	8.2	16.1
Age of FSA debt (years)	5.0	4.9	0.22	6.3	6.7	0.37
Term to maturity (years)	15.7	17.4	0.86	18.5	18.9	0.13

1/ The t-statistic compares means for limited resource group with regular program group to determine if they are different. A t-statistic of 1.645 or greater implies that the means of the two groups are different at the 10 percent level of significance. Ergo, there is only a one in ten probability that these two means are the same by chance. Significant differences are italicized. 2/ Vulnerable farms had negative income and debt-asset ratios greater than 0.40.

a= significant at 10 percent level in 1991, b= significant at 10 percent level in 1992, c= significant at 10 percent level in 1993.



**Table B-3—Effects on changes in FSA interest rates on the income and cash flow of limited resource borrowers for 1995 1/**

	0%	2%	Interest rate on FSA debt of			7%	8%	10%
			4%	5%	6%			
<b>Percentage of limited resource farms with:</b>								
Negative net farm income	31	33	41	44	48	49	50	54
Negative net cash income	36	36	44	44	44	48	48	48
Under \$15,000 total household income	41	41	46	46	48	48	50	53

1/ On January 1, 1996, interest rates were: 5 percent on limited resource loans, 6.5 percent for regular program OL loans, and 7 percent for regular FO loans.